

ABSTRACT OF THE DISCLOSURE

The present invention relates to an improved method and
5 apparatus for detecting and diagnosing disease states in a living organism
by using a plurality of electrical impedance measurements. In particular, the
invention provides for an improved electrode array for diagnosing the
presence of a disease state in the human breast, and discloses a method
of application of the array to the breast that ensures that the multiplicity of
10 impedance measurements obtained from a first body part correspond as
precisely and reproducibly as possible to the multiplicity of impedance
measurements that are obtained from another, homologous, second body
part. A number of diagnostic methods based on homologous electrical
difference analysis are disclosed, including the calculation of a number of
15 metrics used to indicate disease states by comparison with pre-established
threshold values, and the construction of a number of graphical displays for
indicating the location of disease to a body part sector.